

IN THE CLAIMS

1. (Currently Amended) A heat dissipating device for dissipating heat from an electrical component and for generating energy, comprising:

a fluid conduit configured to channel a fluid therethrough, the fluid conduit being thermally connected to ~~an~~ the electrical component capable of generating heat when in operation to cause the fluid to flow through the fluid conduit, wherein the fluid is an electrically conductive fluid;

a heat exchanger operatively positioned between the electrical component and the fluid conduit; and

an energy converter operatively coupled to the fluid conduit that generates energy in response to the flow of fluid, wherein the energy converter includes a first electrode, a second electrode and a permanent magnet centrally displaced between them, the permanent magnet configured to create a magnetic field across the fluid whereby an electric potential is raised between the first electrode and the second electrode.

2. (Previously Presented) The heat dissipating device of claim 1, wherein the fluid conduit includes a first column and a second column, a first connective portion connecting the first column and the second column, a second connective portion connecting the second column to the first column wherein the first column being thermally connected to the electrical component.

3. (Canceled)

4. (Original) The heat dissipating device of claim 1, wherein the fluid is a liquid metal.

5. (Original) The heat dissipating device of claim 1, wherein the energy generated is electrical energy.

6. (Original) The heat dissipating device of claim 1, wherein the energy converter is a liquid magneto hydro generator.

7. (Canceled)

8. (Original) The heat dissipating device of claim 1, wherein the electrical component is adapted to generate heat at less than or equal to 150°C.

9. (Original) The heat dissipating device of claim 1, wherein a volatile fluid is immersed in the fluid, the volatile fluid having a lower boiling point than the fluid.

10. (Original) The heat dissipating device of claim 9, wherein the volatile fluid evaporates due to the heat transferred to the fluid to create gas bubbles in the fluid to further increase fluid flow of the fluid through the energy converter.

11. (Original) The heat dissipating device of claim 10, wherein the gas bubbles have diameters less than half a smallest diameter of the fluid conduit.

12. (Original) The heat dissipating device of claim 1, wherein the heat exchanger is thermally coupled to the second column and configured to extract heat from the fluid and dissipate the extracted heat.

13. (Original) The heat dissipating device of claim 1, wherein the heat exchanger dissipates the heat across a plurality of heat fins into a heat reservoir.

14. (Currently Amended) A heat dissipating device for dissipating heat from an electrical component and for generating energy, comprising:

an electrical component which generates heat when in operation;

a fluid conduit, the fluid conduit configured to channel an fluid therethrough, the fluid conduit being thermally connected to [a] the electrical component ~~capable of generating heat~~ to cause a fluid flow of the fluid through the fluid conduit;

a volatile fluid, the volatile fluid being immersed in the fluid wherein the volatile fluid has a lower boiling point than the fluid; and

a energy converter, the energy converter operatively coupled to the fluid conduit to generate energy in response to the fluid flow, the energy converter positioned downstream of the electrical component.

15. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the fluid conduit comprises a closed conduit having a first column, a second column and at least one connective portion connecting the first column to the second column.

16. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, further comprising a heat exchanger thermally connected to the fluid conduit.

17. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 16, wherein the heat exchanger is operatively positioned opposite the electrical component on the closed conduit, the heat exchanger is thermally connected to the closed conduit to draw heat out of the fluid to enhance the fluid flow.

18. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the electrical component is adapted to generate heat at less than or equal to 150°C.

19. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the volatile fluid evaporates due to the heat transferred to the fluid to create gas bubbles on the fluid to further increase fluid flow through the energy converter.

20. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the energy converter comprises a first electrode, a second electrode and a permanent magnet centrally displaced therebetween, the permanent magnet creating a magnetic field across the fluid whereby an electric potential is raised between the first electrode and the second electrode, each electrode deriving electricity across the electric potential.

21. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the fluid is a liquid metal.

22. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 14, wherein the heat exchanger is positioned on the fluid conduit to downwardably flow the fluid therethrough.

23. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 22, wherein the heat exchanger dissipates the heat across a plurality of heat fins into a heat reservoir.

24. (Currently Amended) A heat dissipating device for dissipating heat from an electrical component and for generating energy comprising:

at least one electrical component which generates heat when in operation;

at least one fluid conduit, the least one fluid conduit configured to channel a fluid therethrough, the at least one fluid conduit having a first column, a second column oppositely positioned from the first column, the at least one fluid conduit thermally connected to the at least one electrical component, each electrical component capable of generating heat at less than or equal to 150°C;

at least one energy converter, the at least one energy converter operatively associated with the at least one fluid conduit to generate electricity from the fluid flow, the at least one energy converter coupled to the at least one fluid conduit downstream from the electrical component, the at least one energy converter comprising a first electrode, a second electrode and a permanent magnet centrally displaced therebetween; and

a heat exchanger, the heat exchanger operatively positioned on the second column, the heat exchanger thermally connected to the second column to transfer heat out of the fluid across heat fins into a heat reservoir.

25. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 24, further comprising a plurality of electrical leads coupled to the first electrode and the second electrode, the plurality of electrical leads transferring the electricity to an electrical storage.

26. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 24, wherein the permanent magnet is configured to create a magnetic field across the fluid whereby an electric potential is raised between the first electrode and the second electrode, each electrode deriving electricity across the electric potential.

27. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 24, wherein a volatile fluid is immersed in the fluid, the volatile fluid having a lower boiling point than the fluid.

28. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 27, wherein the volatile fluid heatably evaporates by the heat creating gas bubbles, the gas bubbles configured to enhance the fluid flow to increase the fluid flow through the energy converter.

29. (Currently Amended) The ~~closed-loop~~ heat dissipating device of claim 28, wherein the gas bubbles have diameters less than half a smallest diameter of the fluid conduit.

Claims 30-36 (Canceled)

37. (Currently Amended) A heat dissipating device for dissipating heat from an electrical component and for generating energy, comprising:

an electrical component which generates heat when in operation;

a fluid conduit configured to channel a fluid therethrough, the fluid conduit being thermally connected to ~~an~~ the electrical component ~~capable of generating heat~~ to cause the fluid to flow through the fluid conduit;

a heat exchanger operatively positioned between the electrical component and the fluid conduit; and

an energy converter operatively coupled to the fluid conduit that generates energy in response to the flow of fluid.